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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/624,051	07/24/2000	R. Bruce Wallace	12680R0US02U	6228

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EXAMINER

CALDWELL, ANDREW T

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/624,051

Applicant(s)

WALLACE ET AL.

Examiner

Andrew Caldwell

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 21-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Remarks

Claims 1-31 are pending. Claims 21-31 are withdrawn from further consideration.

This application contains claims 21-31 drawn to an invention nonelected without traverse in the response filed on November 3, 2003 (paper no. 4). A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7, 10-16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagle, D., Active Storage Networks, www.ece.cmu.edu/~asn/old/pubs/Active%20Storage%20Nets%20Intro.pdf, Carnegie Mellon Univ., pp. 1-14, July 16, 1998, in view of Kumar, A., The Fibre Channel Versus Ethernet Debate: How Many Angels Can Dance On The Head Of A Pin?, Brocade Communications Systems, Inc., pp. 1-6, April 3, 2000. Apparatus claims 10-16 and 19-20 will be discussed before method claims 1-7.

Regarding claim 10, Nagle teaches the invention substantially as claimed by disclosing an apparatus (p. 4 slide 7 active router) that facilitates operations related to data storage between a first device (p. 4 slide 7 pc/client) and at least one data storage unit (p. 4 slide 7 NASD) in a computer network (p. 4 slide 7 showing LAN/WAN protocol between the pc and active router) comprising:

A file system that indicates location of data stored on at least one data storage unit (p. 4 slide 7 showing file system);

Circuitry that processes network protocol data units associated with the operations based on storage services protocol set information to facilitate transmission of the data unit (p. 4 slide 7 active router).

Nagle does not explicitly teach a system wherein said processing of the protocol data units includes encapsulating non-network protocol transactions into network protocol data units.

1 Kumar on the other hand teaches that fibre chanel, a SAN protocol, is a serial
2 expansion of SCSI that sends SCSI transactions (a non-network protocol) over a fibre
3 chanel network protocol (p. 1). Kumar therefore teaches the encapsulating of non-
4 network protocol transactions into network protocol data units.

5 It would have been obvious to one of ordinary skill in the art at the time the
6 invention was made to combine Kumar's teaching regarding the basic features of a SAN
7 technology, Fibre Channel, with the generic SAN system described in Nagle because
8 both describe SAN's.

9 Regarding claim 11, Nagle teaches an apparatus wherein said circuitry balances
10 loads associated with selected read transactions (p. 5 slide 10).

11 Regarding claim 12, Nagle teaches an apparatus wherein said circuitry
12 duplicates data units associated with selected write transactions to achieve mirroring (p.
13 6 slide 11).

14 Regarding claim 13, Nagle teaches an apparatus wherein said circuitry
15 duplicates data units associated with selected transactions to achieve N-way mirroring
16 (p. 6 slide 11).

17 Regarding claim 14, Nagle teaches an apparatus wherein said circuitry
18 duplicates selected metadata (p. 9 slide 17).

19 Regarding claim 15, Nagle teaches an apparatus wherein said circuitry facilitates
20 ensuring right to access based on originator (p. 7 slide 13 access control).

21 Regarding claim 16, Nagle teaches a system wherein said circuitry blocks access
22 to selected destinations (p. 7 slide 13 access control).

1 Regarding claim 19, Nagle teaches a system wherein said circuitry includes a
2 host (p. 7 slide 13 file manager and slide 14 manager).

3 Regarding claim 20, Nagle teaches a system wherein said circuitry includes a
4 switch (p. 5 slide 10).

5 Regarding claims 1-7, they are method claims corresponding to apparatus claims
6 10-16, respectively. Since they do not teach or define above the information in the
7 corresponding apparatus claims, they are rejected under the same basis.

8
9 Claims 8-9 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable
10 over Nagle in view of Kumar and further in view of Pfleeger, C., Security in Computing, 2nd
11 ed., Rentice-Hall PTR, pp. 286-292, 1997. Apparatus claims 17-18 will be discussed
12 before method claims 8-9.

13
14 Regarding claim 17, the combination of Nagle in view of Kumar teaches the
15 invention substantially as claimed. See the rejection of claim 10 above. The
16 combination of Nagle in view of Kumar Nagle teaches a system including a secure
17 server environment (p. 8 slide 16) but does not teach a system wherein said circuitry
18 monitors and logs access. Pfleeger on the other hand teaches that auditing is a key
19 feature of secure systems (p. 289) and that auditing includes monitoring and logging
20 access (p. 291 logging security events). It would have been obvious to one of ordinary
21 skill in the art at the time the invention was made to combine Pfleeger's auditing system

1 with the secure system of the combination of Nagle in view of Kumar because of
2 Pfleegeer's teaching that auditing is a key feature of secure systems.

3 Regarding claim 18, the combination of Nagle in view of Kumar teaches the
4 invention substantially as claimed. See the rejection of claim 17 above. The
5 combination of Nagle in view of Kumar does not teach a system wherein said circuitry
6 employs results from access monitoring and logging to detect unauthorized intrusion.
7 Pfleegeer on the other hand teaches the use of audit information in an intrusion detection
8 system (p. 292). An intrusion detection uses such a system to detect unauthorized
9 intrusion. It would have been obvious to one of ordinary skill in the art at the time the
10 invention was made to combine Pfleegeer's automated intrusion detection system with
11 the secure system of the combination of Nagle in view of Kumar because of Pfleegeer's
12 teaching that it enhances security by reducing the amount of audit information a human
13 must review (p. 292).

14 Regarding claims 8-9, they are method claims corresponding to apparatus claims
15 17-18, respectively. Since they do not teach or define above the information in the
16 corresponding apparatus claims, they are rejected under the same basis.

17
18 ***Response to Arguments***

19 Applicant's arguments with respect to claims 1-20 have been considered but are
20 moot in view of the new ground(s) of rejection.

21

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Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Caldwell, whose telephone number is (703) 306-3036. The examiner can normally be reached on M-F from 9:00 a.m. to 5:30 p.m. EST.

If attempts to reach the examiner by phone fail, the examiner's supervisor, Glenton Burgess, can be reached at (703) 305-4792. Additionally, the fax numbers for Group 2100 are as follows:

Fax Responses: (703) 872-9306

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 305-9600.



Andrew Caldwell
703-306-3036
May 14, 2004